ORIGINAL

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Redesignation of the 17.7-19.7 GHz Frequency	)	
Band, Blanket Licensing of Satellite Earth	)	IB Docket No. 98-172
Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz	)	RM-9005
Frequency Bands, and the Allocation of Additional	)	RM-9118
Spectrum in the 17.3-17.8 GHz and	)	
24.75-25.25 GHz Frequency Bands for Broadcast	)	
Satellite-Service Use	)	

COMMENTS OF RCN TELECOM SERVICES, INC.

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I. Introduction

RCN Telecom Services, Inc. ("RCN"), by its undersigned counsel, respectfully submits its Comments pursuant to the Commission's Notice of Proposed Rulemaking ("NPRM " or "Notice") in the above-captioned proceeding.[1] RCN, through its operating subsidiaries, utilizes the 18 GHz band to provide video programming services to its customers. Is so doing, RCN brings important competition to the video programming market, which is currently dominated by incumbent cable providers.

In its Notice, the Commission has proposed to allocate either the 18.3-18.55 GHz band or the 18.4-18.55 GHz band on a primary, blanket-licensed basis to certain satellite service providers. The Commission's proposal would carve out 150 to 250 MHz of the 18.142-18.58 GHz band now

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[1] *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use, Notice of Proposed Rulemaking*, IB Docket No. 98-172, RM-9005, RM-9118 (released Sept. 18, 1998).

authorized for fixed service distribution of video programming. Because adoption of this Commission proposal would obstruct the expansion of fixed service video systems, to the significant detriment of competition, and because the Commission has not proposed any viable alternatives specifically encouraging the continued expansion of MVPD service, RCN respectfully requests that the Commission maintain the *status quo* and decline to revise the allocation for this band.

II. Background

RCN, through certain subsidiaries, provides 72 channels of video programming service in the New York City metropolitan area over a private cable satellite master antenna television ("SMATV") point-to-point microwave system licensed in the 18.142-18.58 GHz band. The Commission specifically allocated this band for such use in order "to encourage competition in the video distribution marketplace,"[2] and because "[f]requencies in the 18 GHz band are ideal" for private distribution of video services.[3] Thus, fixed service video programming providers such as RCN are restricted, by the Commission's own requirements, to providing service in the 18.142-18.58 GHz band.[4]

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[2] *Amendment of Part 94 of the Commission's Rules to Permit Private Video Distribution Systems of Video Entertainment Access to the 18 GHz Band, Report & Order*, 6 FCC Rcd 1270, 1271 (1991). The Commission stated that "cable systems increasingly dominate the multichannel video delivery services, resulting in criticism of the industry and complaints of anticompetitive conduct. Although rival multichannel providers are emerging in the marketplace, we recognize the need for action designed to encourage these operators to enter the market and to increase their competitive viability." *Id.* at 1272.

[3] *Id.* at 1271. For example, equipment was already being manufactured for the distribution of video programming in the 18.142-18.58 GHz band, because this band was also designated for Cable Television Relay Service ("CARS") systems.

[4] *See* 47 C.F.R. § 101.603(a)(1) and (2).

Use of this spectrum for this purpose is an important means of providing competitive alternatives to incumbent cable systems which currently dominate the cable services market. For example, utilizing its private 18 GHz video system, RCN provides service to multiple dwelling units ("MDUs"), typically high-rise apartment buildings and condominiums. Currently, RCN's fixed service video system reaches more than 30,000 subscribers in the New York City area.[5] RCN is also one of a handful of companies providing resold local telephone service to residences. RCN is therefore able to offer an attractive package of products to residential customers that includes voice and data services as well as video programming.

While RCN's system utilizes point-to-point microwave stations, it is designed somewhat differently from other types of microwave systems, such as stations used for back-haul of cellular service. RCN's system is designed in a "hub and spoke" configuration, which uses several transmitters to serve hundreds of receive stations. The communications are one-way, from the transmitter to the receive sites. Each station utilizes 440 MHz of spectrum, covering the entire allotment for fixed service video programming in the 18.142-18.58 GHz band.

The configuration of RCN's system requires extensive coordination with nearby two-way point-to-point microwave paths, as well as other operators in the 18 GHz band, particularly in an area as densely populated as New York City. Because RCN's transmitters and receivers are typically

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[5] RCN subsidiaries also provides video, voice, and data services over fiber optic network in New York and other markets. Expansion of these facilities to serve its many thousands of current private video system customers will be time-consuming and, in many cases, economically prohibitive for RCN. Moreover, use of fixed service facilities for distribution of video programming to consumers outside the reach of its fiber systems will continue to be an important factor in RCN's ability to reach as many consumers as possible. Thus, RCN's private video distribution system is vital to its provision of competitive video services.

installed on rooftops, RCN must carefully negotiate the exact installation of its equipment with building owners. As a consequence of the extensive marketing, negotiating, and system planning that RCN must complete to provide service, RCN expends thousands of dollars and many months of time to obtain an MDU contract. Thus, extensive advance planning and significant resources are expended prior to filing an application for an 18 GHz microwave path.

III. The Commission's Proposals for the 18 GHz Band Will Seriously Impede RCN's Ability to Compete with Incumbent Cable Providers

Incumbent cable carriers control between 85 and 87 % of the video programming market.[6] In contrast, private video distributors compose approximately 1.6 % of the market.[7] As the Commission has acknowledged, incumbents dominate the video programming market. RCN, along with other fixed service MVPDs, is striving to bring much-needed competition to the cable industry, utilizing facilities that operate in the 18.142 to 18.58 GHz band.

However, the Commission has proposed to allocate 150 to 250 MHz in the fixed service video distribution band, from 18.3 or 18.4 GHz to 18.55 GHz,[8] on a primary interference, blanket licensed basis, to geostationary ("GSO") fixed satellite service ("FSS") providers. As explained in greater detail below, adoption of this proposal would put an end to expansion of fixed service video

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[6] *See, e.g., Annual Assessment of the Status of Competition in Markets for Delivery of Video Programming, Fourth Annual Report*, CS Docket No. 97-141 (rel. Jan. 13, 1998) ("Competition Report") at ¶ 128 (87%); RCN's Comments and Reply Comments in *Annual Assessment of the Status of Competition in Markets for Delivery of Video Programming*, CS Docket No. 98-102 (filed Aug. 31, 1998) (85%).

[7] Competition Report at ¶ 128.

[8] Hereinafter, "the 18.3-18.55 GHz band."

systems. Without the ability to gain new customers, RCN and other MVPDs will be blocked from providing additional competition to the video services market.

By placing fixed service video providers on a secondary interference basis in the 18.3-18.55 GHz band, the Commission would be limiting up to 250 MHz of the 440 MHz of contiguous spectrum currently allocated for primary use by private video systems. The Commission also has suggested that it would issue blanket licenses to GSO/FSS carriers operating in this part of the spectrum. Effectively, the Commission's proposals would prevent private video systems from utilizing the 18.3-18.55 GHz band, even on a secondary basis. Fixed service video facilities generate powerful signals in accordance with the Commission's technical requirements. When combined with blanket licensing for the construction of hundreds, if not thousands, of small aperture earth stations, the FCC's proposal would virtually end new private video operations in the 18.3-18.55 GHz band. Accordingly, the Commission's proposal would halt expansion of fixed service video systems, since RCN must utilize *all* of the 440 MHz of spectrum in the 18.142-18.58 GHz band to transmit 72 channels of video service.

RCN has examined the feasibility of providing a reduced number of channels over the two separate bands in which, under the Commission's proposal, fixed service video providers would have primary interference status: the 18.1 to 18.3 or 18.4 GHz band together with the 30 MHz in the 18.55-18.58 GHz band.[9] Because equipment does not exist to provide video programming over these separated bands, manufacturers would have to modify existing equipment or even design new equipment to permit such transmissions. Such new equipment would likely be quite expensive, and

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[9] Under the Commission's proposal, the 18.55-18.58 GHz band continues under its current allocation of co-primary status for fixed service and GSO/FSS operators.

RCN would also face an additional hurdle of renegotiating rooftop installation arrangements if the equipment were to occupy more space than existing transmitters. Moreover, RCN would be unable to provide a complete range of service to customers even with the addition of 30 MHz from the 18.55-18.58 GHz band. As a competitive provider, RCN could not afford to expand its system in this manner, which would result in its providing consumers with fewer channels at significantly greater cost.

Therefore, if the Commission's proposal is adopted, RCN would effectively be limited to providing service in the 158-258 MHz contained in the 18.142-18.3 to 18.4 GHz band. Under these circumstances, RCN's service would be reduced by 40 to 65%. Such limited service would be unacceptable to potential customers, particularly when incumbent cable systems can often provide up to 110 channels over their facilities, and incumbent operators are actively expanding that capacity.

Each path for which RCN requests authority represents hundreds of subscribers, because RCN primarily serves MDUs with its fixed service video system. The Commission's proposed reduction and division of the private video distribution band would obstruct RCN from expanding its microwave system, dealing a serious blow to "the primary competitor"[10] in the MDU video market.

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[10] *Competition Report* at ¶ 83.

IV. Primary Allocation of the 17.7-18.3 or 18.4 GHz Band and Co-Primary Allocation of the 18.55-18.8 GHz Band Do Not Provide Viable Alternatives for Private Video Providers

A. The 17.7-18.3 or 18.4 GHz Band is Inadequate for Expansion of Private Video Systems

Although the Commission has proposed to allocate the 17.7 to 18.3 or 18.4 GHz band to fixed service providers on an exclusive primary interference basis, this allocation does not account for the particular needs of fixed service video distributors. As discussed previously, the Commission has segregated private video systems into a special, channelized segment of spectrum from 18.142-18.58 GHz. Under the Commission's proposal, only 158-258 MHz of contiguous spectrum would be available to fixed service video carriers. In order to permit private video systems to utilize the 17.7-18.142 GHz band and to provide them with spectrum comparable to their current allocation, additional changes to the Commission's Rules would be necessary, including the establishment of a new channelization plan.

However, even if the Commission changed its rules to permit provision of video services in the 17.7-18.142 GHz band, fixed service video carriers would face various difficulties clearing new paths. The 17.7-18.142 GHz band is considerably congested with existing point-to-point microwave station operators. Although the congestion itself poses a problem, private video providers also must overcome the hurdle of frequency coordinating their one-way transmission paths with the two-way paths typically operated by incumbent microwave carriers. While video service providers must currently negotiate this problem in the 18.142-18.58 GHz band, the problem is much more highly pronounced in the 17.7-18.142 GHz band. For a fixed service video carrier such as RCN, which

provides service over a "hub and spoke" system in the urban New York City environment, the prevalence of two-way paths and other incumbent operations may prove insurmountable.

In addition to the congestion posed by existing transmissions, the 17.7-18.142 GHz band is likely to become even more highly congested due to the entrance of fixed service operators from frequencies below and above the 18 GHz band. Bands below the 17.7-18.142 GHz band are becoming increasingly congested, requiring microwave operators in those bands to move to higher frequencies. Further, the Commission's proposal to place fixed service carriers on a secondary interference basis in the 18.8 to 19.3 GHz band may require some carriers to migrate down to the 17.7-18.3 GHz band. Thus, it is doubtful that the 17.7-18.142 GHz band would prove useful to fixed service video distributors, even if the Commission revised its rules to channelize this spectrum for their services.

To add to the difficulties that fixed service video carriers would face in the 17.7-18.142 GHz band, the Commission has suggested permitting Broadcast Satellite Service ("BSS") providers to use the 17.3-17.8 GHz band on a co-primary basis beginning in 2007. Thus, a congested band, of current questionable usefulness, could become worthless for fixed service video providers.

Even if the degree of congestion in the 17.7-18.142 GHz band could be overcome, manufacturers would have to adapt their equipment at substantial expense to permit the fixed service distribution of video programming in these frequencies. Once such equipment was obtained, duplicate transmitters would be required to be installed, at least on an interim basis, because of RCN's hub-and-spoke system design (typical of private video systems). However, RCN is extremely skeptical that it will be able to persuade most building owners to permit installation of additional equipment. The combined effect of these impediments would stymie any future

expansion of fixed service video systems, to the great detriment of competition in the cable services market.

B. The 18.55-18.8 GHz Band is Also Inadequate for Expansion of Fixed Service Video Systems

The Commission has also proposed to continue to license GSO/FSS and fixed service operations on a co-primary basis in the 18.55-18.8 GHz band. Again, however, private video systems are restricted to utilizing the 18.55-18.58 GHz band, so the continuation of the current allocation does not currently assist them. Furthermore, the 18.55-18.8 GHz band provides only 250 MHz of spectrum; as explained previously, private video systems require at least 440 MHz of contiguous spectrum. In addition, there is a lack of equipment for provision of video services in the 18.58-18.8 GHz band. Last, the band is already congested, and it is unlikely that private video distributors will be successful in coordinating transmission paths to expand their systems. For these reasons, the 18.55-18.8 GHz band is not an alternative for fixed service video carriers.

V. Conclusion

RCN respectfully requests that the Commission decline to adopt any its proposals to revise the allocation of the 18 GHz band. None of the Commission's suggestions specifically account for the technological and regulatory restrictions placed on fixed service video carriers. In addition, incumbent cable operators dominate the industry; as the Commission has acknowledged, private video distributors provide vital competition. Therefore, it is in the public interest for the Commission to encourage, rather than prevent, the expansion of fixed service video systems.

Respectfully submitted,

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